

Date: Thursday, 8/24/2006 11:10:25 AM
 User: Kim Johnston

Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: BLADE FITTING
Job Number	: 28319		
Estimate Number	: 12300		
P.O. Number	: N/A	Part Number	: D3488042
This Issue	: 8/24/2006 S.O. No. : N/A	Drawing Number	: D3488 / DSK101
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: N/A Type : MACHINED PARTS	Drawing Revision	: B/D # 06-03-24
Previous Run	: 26839	Material	: N/A
Written By	:	Due Date	: 9/6/2006 Qty: 20 Um: Each
Checked & Approved By	:		
Comment	: Est Rev:A New Issue 06-02-28 JLM Est Rev:B As per Rev B 06-03-30 JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6103003	alum billet
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 20.0000 Each(s)

Alluminum Round Billet D6103-003

Batch: 28336

2.0	MORI SEIKI	MORI SEIKI CNC LATHE LARGE
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Comment: MORI SEIKI CNC LATHE LARGE

1-Turn as per Dwg DSK 101 & Folio FA627

2-Deburr

3.0	QC 5	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

4.0	HAAS1	HAAS CNC VERTICAL MACHINING #1
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Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA627 & Dwg D3488

2-Deburr

5.0	QC 2	INSPECT PARTS AS THEY COME OFF MACHINE
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Comment: INSPECT PARTS AS THEY COME OFF MACHINE

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Thursday, 8/24/2006 11:10:25 AM
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Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

En 06/10/02 x 20

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

Y 06/10/02 x 20

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

Y a.m 06/10/13 x 20

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

a.m 06/10/16

(20)

10.0

ALS71032225

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 80.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 ALS7-1032-225 Insert M19393

a.m 06/10/17

(20)

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Inserts as per Dwg D3488

a.m 06/10/17

(20)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

FC 06 10 18

(20)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: FPI4

FC 06 10 18

(20)

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Thursday, 8/24/2006 11:10:25 AM
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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 28319

Part Number: D3488042

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

76
06/10/18

Job Completion



06/10/18

W/O:		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Mfg / Design Mgr	Approval QC Inspector	

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Design Mgr	Approval QC Inspector
			Initial Design Mgr	Action Description Design Mgr	Sign & Date			

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART AEROSPACE LTD		Work Order:	28319
Description: Blade Fitting, RH		Part Number:	D3488-2
Inspection Dwg: D3488	Rev: B	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

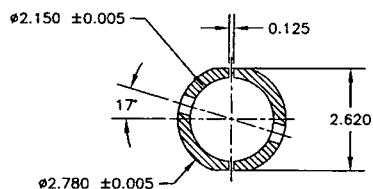
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	0.127	—			
2.620	+/-0.010	2.619	—			
0.793	+/-0.010	0.795	—			
1.351	+/-0.010	1.350	—			
1.317	+/-0.010	1.318	—			
90°	+/-0.1°	90°	—			
1.802	+/-0.010	1.800	—			
Ø0.508	+0.006/-0.001	Ø0.508	—			
R0.062	+/-0.010	R0.062	—			
1.500	+/-0.010	1.500	—			
8.000	+0.030/-0.000	8.009	—			
11.18	+/-0.030	11.180	—			
Ø0.484	+0.005/-0.001	Ø0.485	—			
1.180	+/-0.010	1.179	—			
3.150	+/-0.010	3.150	—			
3.070	+/-0.010	3.070	—			
0.590	+/-0.010	0.589	—			
0.125	+/-0.010	0.124	—			
1.005	+/-0.010	1.004	—			
3.500	+/-0.010	3.498	—			
Ø0.297	+0.005/-0.000	Ø0.297	—			
Ø0.430	+/-0.010	Ø0.430	—			
0.100	+/-0.010	0.101	—			

Measured by:	<i>gmk</i>	Audited by:	<i>E</i>	Prototype Approval:	N/A
Date:	06/09/27	Date:	06/09/27	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	<i>[Signature]</i>



- Ø0.297
C"BORE Ø0.430 x 0.100
INSTALL ALS4-1032-225 (OR AKS4-1032-225
OR ALS7-1032-225 OR AKS7-1032-225)
INSERTS AFTER FINISH
(4 PLACES)



SECTION A-A

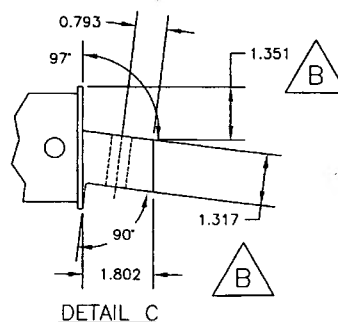
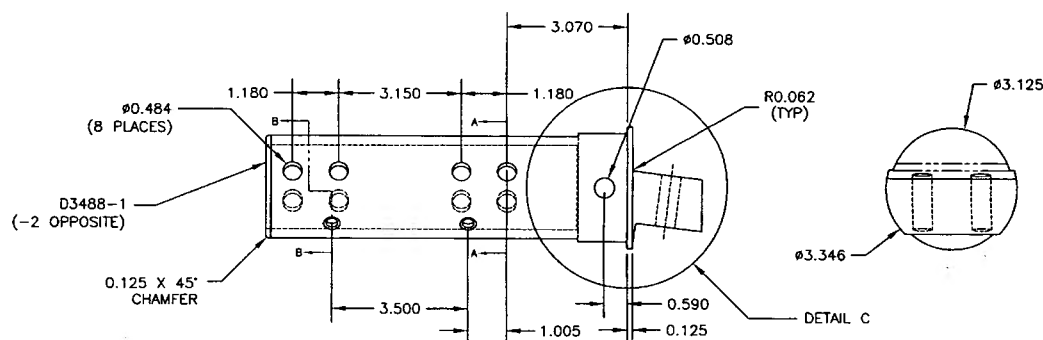
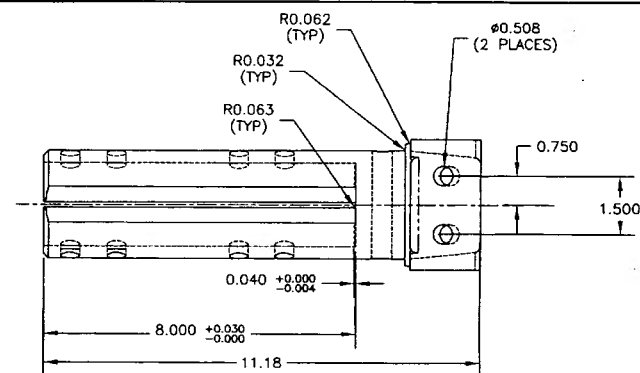
D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

D3488-041/-042 BLADE FITTING

- 1) MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR
PER QQ-A-225/9
(REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) INSTALL INSERTS AFTER POWDER COAT
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28319



D3488-041 SHOWN (D3488-042 OPPOSITE)

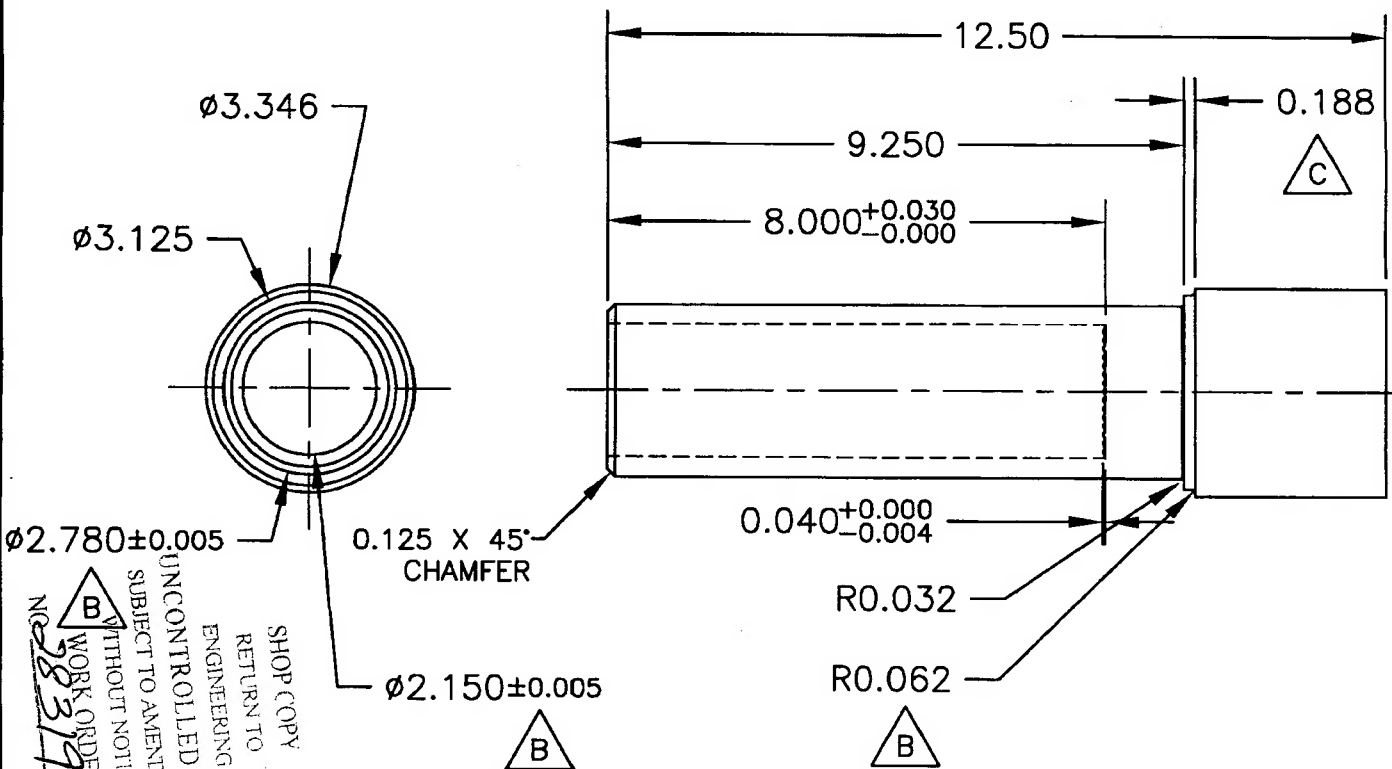
RELEASE
06.05.89 AM
PER OS
ECN #789

B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN	<i>PH</i> DRAWN BY <i>PH</i>	DART DART AEROSPACE USA, INC. PORT HADLOCK, MA
CHECKED	<i>PH</i> APPROVED <i>PH</i>	DRAWING NO. D3488
DATE	06.03.15	TITLE BLADE FITTING

DART

06.05.09
20.05.09 - 18

DESIGN	DRAWN BY	DART AEROSPACE USA, INC.	
04	04	PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. D
11	11	DSK 101	SHEET 1 OF 1
DATE	TITLE	SCALE	
06.05.09	D3488-1/-2 TURNING DETAIL	1:3	
A	05.12.21	NEW ISSUE	
B	06.03.02	ADD TOLERANCES AND RADIUS	
C	06.04.17	0.188 WAS 0.125	
D	06.05.09	REMOVE DIAMETER FOR CHAMFER	



- 1) MATERIAL: MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9 (REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHOP COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 28319

DSK 101

**CERTIFICATE OF CONFORMITY****SOLD TO:**

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ont.
K6A 1K7

SHIPPED TO:

same

<u>QUANTITY</u>	<u>PART NUMBER</u>	<u>PART NAME</u>	<u>P.O. NUMBER</u>
20	DSK101	Support as per Dwg DSK101 D6103-003 B 28318	1987
20	DSK101	Support as per Dwg DSK101 D6103-003 B 28319	1987
40	D2968-5	Ring M4130NT3000W500 M102020 W/O 28267B	1987
20 22	D2968-5	Ring M4130NT3000W500 M102020 W/O 28268B	1987
20 22	D3407-5	Ring M174R3000 M18742 W/O 28333	1987

MATERIAL: supplied by DART

We hereby certify that the above parts were made in conformance with applicable drawings.

METEC Metal Technology Inc.

Shirley (Regula) Walz

BC 06.09.21

Vankleek Hill, September 20, 2006